

REMARKS

The claims are 1, 3 and 4.

The above amendment is responsive to points set forth in the Official Action.

In this regard, the claims are directed to a preferred embodiment of matrix and center of luminescence.

The significance of this amendment will become further apparent from the remarks below.

Support for the above amendment is particularly apparent from the disclosure in paragraph [0017] of the specification.

Claims 1 and 2 have been rejected under 35 U.S.C. 102(b) as being anticipated by JP 2000-063823.

Claims 1, 2 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by the article by Smets et al., the article by Wang et al. or U.S. 4,524,300.

Claims 1 and 3 are rejected under 35 U.S.C. 102(a) as being anticipated by U.S. 2003/0122484 or U.S. 2003/012034.

Claims 1 and 3 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. 2003/0160259, U.S. 6,841,933, U.S. 6,908,220 or U.S. 6,835,958.

These rejections are respectfully traversed.

JP 2000-063823, the Smets article, the Wang et al. article and U.S. 4,524,300 disclose a matrix of the first general formula of the previous claim 1 i.e. $\text{SrM}^1\text{Al}_6\text{O}_{11}$. On the other hand, the present claims are directed to materials of the second general formula i.e. $\text{SrM}^2\text{Al}_3\text{O}_7$, where M^2 = a rare earth metal.

U.S. 2003/0122484, U.S. 2003/012034, U.S. 2003/0160259, U.S. 6,841,933, U.S. 6,908,220 and U.S. 6,835,958 are directed to materials using the matrix of the second general formula where terbium acts as the center of luminescence. However, the present claims are directed to materials having a matrix of the second general formula wherein the center of luminescence is europium and not terbium.

In particular, please see paragraph [0017] of the present specification where it is pointed out that the compounds of general formula 2, where the center of luminescence is europium, are preferred.

Support for this feature can also be seen from Table 1 in paragraph [0031] of the present specification.

The selection of an appropriate matrix and an appropriate center of luminescence is essential to achieve optimum luminescence emission by mechanical stimulation and such selection is unobvious to one of ordinary skill in the art.

Turning to the rejection of claim 4 under 35 U.S.C. 112, due to non-disclosure of a flux in the blend subjected to sintering at a high temperature, on the ground that the article by Smets et al. teaches that for a luminescent material having the formula (first formula) $\text{SrM}^2\text{Al}_6\text{O}_{11}$ to be formed, a B_2O_3 or H_3BO_3 flux must be present and that if the flux is not present then $\text{SrM}^2\text{Al}_6\text{O}_{11}$ will not form. In reply, since the role of a flux material is to promote the sintering reaction, the difficulty in obtaining effective sintering at reasonable conditions in the absence of a flux material is of a relative nature depending on the sintering conditions, so that, even if Smets et al. actually failed in accomplishing sintering without a flux, this fact is never a support for the allegation that a flux must always be present in a sintering system, because a person having failed to obtain sintering without a flux may have a reasonable chance of success under modified sintering conditions equally without using any flux materials.


With regard to the comment concerning references cited in the specification, these appear in the Information Disclosure Statement filed on January 11, 2007.

No further issues remaining, allowance of this application is respectfully requested.

If the Examiner has any comments or proposals for expediting prosecution, please contact undersigned at the telephone number below.

Respectfully submitted,

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